

# **AN IMPROVED STRUCTURE OF HEAT SINK**

## **BACKGROUND OF THE INVENTION**

### **1. Field of the invention**

The present invention relates to an improved structure of heat sink. Particularly, it relates to an improved structure of heat sink in some machine elements of machinery or electronic products running to cause waste heat.

### **2. Prior Art**

Look into former heat sink used in some machine elements while machinery or electronic products run to cause waste heat; some of them are made into layer built or multiple needle-pillar type of lead-heat panel by pure aluminum with high heat conduction to contact some machine elements causing waste heat for conducting heat produced as some machine elements cause waste heat. Further, setting an electric fan device in the lead-heat panel to continuously bring heat into ambient air giving off via airflow that avoids to influence the effects of some machine elements when they cause waste heat and make their working temperature too high. No matter what the structures of heat sink are used habitually mentioned above, it is hard for them to achieve the ideal effect at last.

## **OBJECTS OF THE INVENTION**

The primary purpose of the present invention is to solve the problems mentioned above and to provide an improved structure of heat sink that relates to heating solution in the liquid state of the closed mini pipeline to evaporate as gas and bring away heat produced when some machine elements cause waste heat. Gas will condense into liquid again and give off heat; in this case, continuous circulating changing in the closed mini pipeline produces the cooling effect to lower the ideal working temperature of some machine elements when they cause waste heat and then produce heat.

### BRIEF DESCRIPTION OF THE DRAWING

FIG.1 is a perspective view of the analyzed structure of the present invention.

FIG.2 is a perspective view of the structure of the closed mini pipeline of the

5 present invention.

### DESCRIPTION OF THE PREFERRED EMBODIMENT

As showing in FIG.1 and 2, an improved structure of heat sink (1) of the present invention is combined with the base (2) and the structure of the closed mini pipeline (3). Within the length and width of the base (2) are in accordance with some machine elements (4) causing waste heat for connecting closely with said machine elements (4) as a whole. By way of the cooling effect produced when the solution in the pipeline of the structure of closed mini pipeline (3) connecting with the base (2) circulate and change mutually in the liquid state and steam, which makes some machine elements (4) in machinery or electronic products running to produce waste heat cooling.

15 As showing in FIG.2, the structure of the closed mini pipeline (3) of the present invention is a circulating network of the closed mini pipeline. Within the liquid tank of concentrated solution (5) contains the mini liquid (6) low the atmosphere pressure is through the generator (7). Liquid in the pipeline is heating to the state of boiling and giving off heat through central processing device to make part of liquid be vapor (10) by gasification and get t into the condenser (8). Some of liquid (6) having no gasification flows back in the liquid tank of concentrated solution (5) to be used circularly again via the first mini pipeline (9). Vapor (10) getting into the condenser (8) mentioned above will condensate to be liquid (6) and release heat into the air. At the same time, liquid (6) getting into the evaporator (11) will evaporate to bring away the heat and produce the cooling effect; besides, it goes back separately to the liquid tank of concentrated solution (5) via the second and the third mini pipeline (12) (13) in the

state of vapor (10). In this case, continuous circulating operation achieves the effect of making some machine elements (4) causing waste heat radiate heat.

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